

Patent claims

1. Magnesium based alloy with improved corrosion resistance, containing 1.5-5 weight % Al, 0.6-1.4 weight % Si, 0.01-0.6 weight % Mn, 0.01-0.4 weight % RE.
2. Magnesium alloy according to claim 1, wherein the alloy contains until 0.5 weight % Zn.
3. Magnesium alloy according to claim 2, wherein the Zn content is in the range 0.1-0.3 weight %.
4. Magnesium alloy according to claim 1, wherein the Mn content is in the range 0.01-0.3 weight %.
5. Magnesium alloy according to claim 1, wherein the rare earth elements are Misch metal.
6. Magnesium alloy according to claim 1 - 2, comprising 1.9-2.5 weight % Al, 0.7-1.2 weight % Si, 0.15-0.25 weight % Zn, 0.01-0.3 weight % RE and 0.01-0.2 weight % Mn.
7. Method of improving the corrosion resistance of magnesium, aluminium, silicon alloys where Mn is added in order to reduce Fe impurities, by keeping both Mn and Fe at a low level by adding small amounts of RE.
8. Method according to claim 7, where the Mn content is kept above 0.01 weight % .
9. Method according to claim 7, wherein the RE content is kept in the range 0.01-0.4 weight % .

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